What is claimed is:

1. A semiconductor thin film deposition apparatus comprising:

at least one reactor in which a wafer is received;

a gas supply portion for supplying a reaction gas or inert gas to the reactor;

an exhaust pump for exhausting gas from the reactor; and

an ozone supply portion for generating ozone as a gas that reacts with the reaction gas, and for supplying the ozone to the reactor.

2. The semiconductor thin film deposition apparatus of claim 1, wherein the ozone supply portion comprises:

an ozone generator;

a main valve for allowing ozone to flow or for blocking the flow of ozone;

at least one ozone transfer unit for transferring ozone, which has passed through the main valve, to the reactor; and

an ozone control unit for allowing a certain amount of ozone to flow to the ozone transfer unit when an excessive amount of ozone is generated by the ozone generator.

3. The semiconductor thin film deposition apparatus of claim 2, wherein the ozone transfer unit comprises:

a process ozone transfer member for transferring ozone used in a thin film deposition process; and

a thermal treatment ozone transfer member for transferring ozone used in a thermal treatment process.

4. The semiconductor thin film deposition apparatus of claim 3, wherein the ozone transfer unit further comprises:

a selection transfer member for selectively transferring ozone which has passed through the process ozone transfer member or the thermal treatment ozone transfer member, to the reactor or the exhaust pump.

5. The semiconductor thin film deposition apparatus of claim 4, wherein the selection transfer member comprises:

a first selection valve connected to a line between the process ozone transfer member and the thermal treatment ozone transfer member and the reactor; and

a second selection valve connected to the line and the exhaust pump.

6. The semiconductor thin film deposition apparatus of claim 3, wherein the process ozone transfer member comprises:

a first process valve connected to the main valve in parallel; and

a process mass flow controller and a second process valve sequentially connected to the first process valve.

7. The semiconductor thin film deposition apparatus of claim 3, wherein the thermal treatment ozone transfer member comprises:

a first thermal treatment valve connected to the main valve in parallel; and

a thermal treatment mass flow controller and a second thermal treatment valve sequentially connected to the first thermal treatment valve.

8. The semiconductor thin film deposition apparatus of claim 6, wherein the process mass flow controller controls the flow of ozone up to 500 sccm.

9. The semiconductor thin film deposition apparatus of claim 7, wherein the thermal treatment mass flow controller controls the flow of ozone up to 20000 sccm.

10. The semiconductor thin film deposition apparatus of claim 2, wherein the excessive ozone control unit comprises an automatic pressure valve and an ozone remover which are installed on the line between the main valve and the ozone generator, and the automatic pressure valve is automatically opened when the pressure

of ozone is equal to or greater than a predetermined value, and the ozone remover removes ozone which has passed through the automatic pressure valve.

11. The semiconductor thin film deposition apparatus of claim 10, wherein the excessive ozone control unit further comprises a valve for allowing/blocking the flow of ozone and a check valve for allowing ozone having a predetermined pressure or greater to flow only toward the ozone remover, the valve and the check valve being installed on the line between the main valve and the ozone remover.

12. The semiconductor thin film deposition apparatus of claim 1, further comprising a heater for providing a temperature to perform thermal treatment on a wafer received in the reactor in the reactor.

13. The semiconductor thin film deposition apparatus of claim 12, wherein the heater provides the temperature in a range of 300 to 700 °C.

14. The semiconductor thin film deposition apparatus of claim 1, wherein the inert gas is argon.